UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,995	11/14/2003	William D. Rau	R30.12-0001	1543

7590 03/28/2005	EXAMINER
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DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/713,995	RAU ET AL.
	Examiner	Art Unit
	Sihong Huang	2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 November 2003</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/19/04</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Preliminary Amendment

1.   A preliminary amendment was filed on Dec. 13, 2004. As directed by the preliminary

amendment, claims 1, 3, 7, 8, 10 and 11 are amended and new claims 18-20 are added. Thus,

claims 1-20 are presently pending in this application.

Claim Objections

2.   Claim 15 is objected to because of the following informalities:

In claim 15, line 1, "of claim of claim 11" should read as -- of claim 11 --.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1, 2, 4-8, 10, 11 and 14-20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Anderson, III et al. (US Pat. No. 6,433,706 B1) in view of Gerber (US Pat.

No. 5,568,406).

Regarding claims 1 and 20, Anderson, III et al disclosed a law enforcement vehicle (10 of

Fig. 1) comprising:

a camera (14) mounted on the law enforcement vehicle (col. 3, line 67), the camera

configured to identify a license plate on a vehicle (col. 4, lines 1-2), and to provide output signal

indicative of the identified license plate of the vehicle (col. 4, lines 1-13);

a processor (20, see Fig. 3) configured to received a signal from camera (14) indicative of

the identified license plate, and to compare (23) the received signal with a list vehicle license

plates (col. 4, lines 29-36 and col. 5, lines 16-23);

a storage device (30, see Fig. 3) coupled to the processor, storage device configured to

provide to the processor the list of vehicle license plates (col. 4, lines 29-36); and

an output device (26, 29, see Fig. 3) configured to provide an output detectable by a law

enforcement officer indicating that a detected license plate matches a license plate in the list of

vehicle license plates (col. 5, lines 23-35).

Anderson, III et al differ from claims 1 and 20 in that Anderson, III et al do not disclose

that the camera further captures additional information related to the vehicle for comparison.

However, Gerber, from the same field of endeavor, similarly teaches a stolen car detection

system. Gerber suggests, in addition to the license plate comparison, additional captured

information related to a vehicle (e.g., car's model, color, height) can also be used for comparison

(e.g., by a matching system) to help identify the car's model and color (col. 2, lines 12-22 and

col. 1, lines 50-52). Based on this teaching, it would have been obvious to a person having

ordinary skill in the art at the time of the invention to use the camera of Anderson, III et al to

capture additional information related to a vehicle and compare such additional information as

taught by Gerber in order to not only allow the system of Anderson III et al to compare the

captured license plate but also to provide the additional advantage of allowing the system of

Anderson III et al to compare additional information (e.g., car's model or color). The motivation

for doing this is to enhance the integrity of identifying a vehicle.

Regarding claim 2, Fig. 1 of Anderson, III et al clearly shows the camera is configured to identify the license plate on the vehicle while the law enforcement vehicle is in motion.

Regarding claim 4, the output device (26, 29) displays (e.g., by 26) the matched license plate number and its associated record ("detailed information related to the identified license plate") and/or records indicating that the vehicle is stolen or that the owner is wanted by police (col. 4, lines 34-36, col. 5, lines 25-35 and col. 7, lines 16-18).

Regarding claims 5 and 6, the output device (26, 29) of Anderson, III et al provides an audible signal (e.g., by 29) to the law enforcement officer (col. 5, lines 30-35).

Regarding claim 7, Anderson, III et al further disclosed a radio transmitter (wireless transceiver 68) for transmitting a signal to a central location. Although Anderson, III et al do not disclose transmitting the signal when the law enforcement vehicle has detected a license plate in the list of vehicle license plates, Anderson, III et al disclose that the database can store a list of license plates of stolen or missing vehicles.(col. 5, lines 50-53). Therefore, it would have been obvious for the law enforcement vehicle at patrol to transmit a signal to a head quarter or a central monitoring location in order to notified the head quarter or call for backup when the identified license plate matches a stolen or missing vehicle's license plate.

Regarding claim 8, Anderson, III et al further disclosed that the database 30 can be used to store license plate number of a single state, the entire nation or a list of stolen or missing vehicles (col. 4, lines 29-40) and Gerber further teaches updating the database. Therefore, it would have been obvious to update the database of Anderson, III et al as taught by Gerber in order to keep an update list of stolen or missing cars.

Regarding claim 10, although Anderson, III et al do not disclose a plurality of cameras mounted to the law enforcement vehicle, Gerber further teaches that a plurality of cameras (see camera systems 1 and 2 shown in Fig. 1B) can be used to improve accuracy. Based on this teaching, it would have been obvious to a person having ordinary skill in the art at the time of the invention to employ multiple cameras in the system of Anderson in order to increase accuracy in identifying the vehicle. Anderson III et al further disclosed comparing the captured license plate with a list of stolen vehicle license plates (col. 4, lines 32-33).

Regarding claim 11, Anderson III et al disclosed a method of identifying from a law enforcement vehicle (10), a vehicle, comprising: capturing step (14), identifying step (Fig. 4, col. 6, lines 19-41), determining step (22, col. 4, line 41 to col. 5, line 15 and 36-65), comparing step (col. 5, lines 60-65 and col. 4, lines 34-36); and providing step (col. 5, lines 23-35). Anderson III et al differ from claim 11 in that Anderson, III et al do not disclose the step of capturing or obtaining additional information related to the vehicle from the captured image. However, as disclosed with respect to claim 1 above, Gerber, from the same field of endeavor, suggests, in addition to obtaining the license plate for comparison, additionally captured information related to a vehicle (e.g., car's model, color, height) can also be used to identify the vehicle (col. 2, lines 12-22 and col. 1, lines 50-52). Based on this teaching, it would have been obvious to a person having ordinary skill in the art at the time of the invention to use the camera of Anderson, III et al to capture or obtain additional information related to a vehicle as taught by Gerber in order to not only allow the system of Anderson III et al to compare the captured license plate but also to provide the additional advantage of allowing the system of Anderson III et al to compare

additional information (e.g., car's model or color). The motivation for doing this is to enhance the integrity of identifying a vehicle.

Regarding claim 14, although Anderson III et al do not disclose updating the database of license plate numbers from a central database, Anderson III does disclose that the law enforcement vehicle can communicate with the central database 74 via wireless transceivers (68 and 70). As Gerber teaches new license plate information can be added over a communication line (col. 5, liens18-20) and Anderson III et al disclosed the database 30 can be used to store different lists (col. 4, lines 29-40), it would have been obvious to use the wireless transceivers 68 and 70 of Anderson III et al to update the database 30 in order to keep an updated list of stolen or missing cars every time when such stolen or missing cars were reported to the central database 74.

Regarding claim 15, the database 30 of license plates contains license plates associated with stolen vehicles (col. 4, lines 32-33) and wherein the providing step provides output indicating that the identified license plate is to a stolen vehicle (col. 5, lines 23-35).

Claim 16 is rejected for the same reason as for claim 2 as discussed above.

Claim 17 is rejected for the same reason as for claim 7 as discussed above.

Regarding claim 18, as disclosed above to claims 1 and 11, Gerber teaches comparing additional information related to a vehicle (e.g., car's model, color, height) in addition to compare license plate. Such additional step allows the system to identify vehicle with switched/stolen license plate (col. 1, line 6-8, col. 2, lines 54-63 and col. 10, lines 42-44). The motivation for doing this is to enhance the integrity of identifying a vehicle.

Regarding claim 19, as explained above, the combination of Anderson III et al and

Gerber disclosed that the additional information includes color and model (col. 2, lines 19-21 of

Gerber). Although the combination does not include make and expiration data or information,

once Gerber teaches additional information related to a vehicle can be used to identify a vehicle,

it would have been obvious to a person having ordinary skill in the art at the time of the

invention to use any well known vehicle related information such as make and expiration data or

information of a vehicle to aid in identifying a vehicle. One motivation for using more

information is to increase the accuracy in identifying a vehicle.

5.   Claim 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson,

III et al in view of Gerber as applied to claims 1 and 11 above, and further in view of Royster, Sr.

(US Pat. No. 3,656,111).

The combination of Anderson, III et al and Gerber differs from claims 3 and 13 in that it

does not disclose storing an image of the vehicle when the captured license plate matches a

license plate in the list of vehicle license plates. However, Anderson III et al teach that the list of

vehicle license plates in database 30 can correspond to a list of stolen or missing vehicles (col. 4,

lines 32-33). Therefore, if the captured license plate matches to one of the stolen or missing

vehicle, it would be obvious to store image or a copy of image of a vehicle for distribution to

other law officers for tracking of the stolen vehicle or for use as evidence. Royster, Sr., from the

same field of endeavor, teaches such simple concept of storing the capture image of the stolen

vehicle (19, 20 and col. 2, lines 25-33). Thus, it would have been obvious to a person having

ordinary skill in the art at the time of the invention to store an image of vehicle as taught by

Royster, Sr. in the combination of Anderson III et al and Gerber in order to aid law officers in

tracking stolen vehicles and use such information as evidence.

6.   Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Anderson, III et al. in view of Gerber as applied to claims 1 and 11 above, and further in view of

Kim (US Pub. No. 2004/0218785 A1).

As discussed above, the combination of Anderson, III et al and Gerber disclosed the

camera (14) provides a description (license plates, model, color, etc.) of the identified vehicle to

the processor (20), the storage device (30) is further configured to provide to the processor

information on the vehicle (e.g., model, color, etc.) associated with the identified license plate,

and the processor (20) is further configured to compare the information (e.g. by matching

system, col. 2, lines 19-21 of Gerber) on the vehicle with the identified license plate with the

image provided by the camera (14).   The combination of Anderson III et al and Gerber differs

from claims 9 and 12 in that it does not disclose that the output device (26, 29) provides the

output signal if the information provided does not match. However, Kim, from the same filed of

endeavor, similarly teaches a license number recognizing system in which when the captured

information does not match, it provides an output signal to the speaker 227. See steps S118,

S122, and S124 in Figs. 4a and 4b, pp 0042 and pp 0069. Based on this teaching, it would have

been obvious to a person having ordinary skill in the art at the time of the invention to apply the

teaching of Kim to the combination of Anderson III et al and Gerber in order to notify the law

officer that the monitored vehicle is not a stolen or missing car or signal the law office to

investigate the vehicle in question.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

> Deffontaines (US Pat. No. 5,083,200) and Perterson (US Pat. No. 6,262,764 B1) are cited
>
> to show methods and systems for identifying vehicle with image input from camera.
>
> Morgan et al. (US Pat. No. 6,188,939 B1) is cited to show advanced law enforcement and
>
> response technology.
>
> Nakayama et al. (US Pub. No. 2002/0093419 A1) is cited to show vehicular identifying
>
> system.

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Sihong Huang whose telephone number is 571-272-2958. The

examiner can normally be reached on Mon, Thu & Fri.

> If attempts to reach the examiner by telephone are unsuccessful, the examiner's
>
> supervisor, Daniel J. Wu can be reached on 571-272-2964. The fax phone number for the
>
> organization where this application or proceeding is assigned is 703-872-9306.
>
> Information regarding the status of an application may be obtained from the Patent
>
> Application Information Retrieval (PAIR) system. Status information for published applications
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> system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR
>
> system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sihong Huang
March 18, 2005